

## **The Influence of $\alpha$ -Defensin and Cytokine IL-1 $\beta$ , Molecular Factors of Innate Immune System, on Regulation of Inflammatory Periodontal Diseases in Orthodontic Patients**

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**Abstract :** The article presents the results of a study involving 97 patients with different types of orthodontic pathology. Immunological examination of patients included determination of the level of  $\alpha$ -defensin and cytokine IL-1 $\beta$  in mixed saliva. The study showed that the level of  $\alpha$ -defensin serves as a diagnostic marker for determining the therapeutic measures in the treatment of inflammatory processes in periodontal tissues. A-defensins exhibit immunomodulating and antimicrobial activity during inflammatory processes and play an important role in the regulation of the pathology of periodontal disease. The obtained data allowed the development of an algorithm for diagnosis and the implementation of immunomodulating therapy in the treatment of periodontal diseases in orthodontic patients.

**Keywords :**  $\alpha$ -difensin, cytokine, orthodontic treatment, periodontal disease, periodontal pathogens

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